

EDUCATION AND TRAINING JOINT CROSS-SERVICE GROUP



MILITARY VALUE ANALYSIS REPORT

TO THE INFRASTRUCTURE STEERING GROUP

July 2004

Education & Training Joint Cross-Service Group

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EXECUTIVE SUMMARY

Military Value Analysis Report

The Education and Training Joint Cross Service Group (E&T JCSG) has four subgroups: Flight Training (FT), Professional Development Education (PDE), Specialized Skill Training (SST), and Ranges & Collective Training Capability. Each E&T JCSG subgroup focused Military Value Analysis calculations on the existing physical plants' capability to perform specific functions based upon DoD selection criteria, reference Federal Register published February 12, 2004. Each subgroup reviewed a distinct functional area (e.g. category of institutional training) within the purview of the E&T JCSG. The E&T JCSG was designated to evaluate AC/RC institutions, SOF schools, defense agencies' schools, and civilian institutions, with the exceptions of healthcare and intelligence professionals' education and training. Also excluded from E&T JCSG analysis were those categories/sub-categories of institutional education and training to be evaluated by the Services, e.g. recruit training, officer acquisition training, junior officer PME, enlisted leadership programs, and Army One Station Unit Training.

E&T JCSG "schools" functions encompass designated Flight Training, Specialized Skill Training, and professional education programs (intermediate and senior PME, Graduate Education, and Other Full-Time Education Programs) regardless of Service component, agency or curricula content. The Ranges and Collective Training Capability Subgroup was designated to evaluate training ranges, test and evaluation ranges, and simulation centers. Military Value Analysis for each function within the purview of the E&T JCSG is described separately in subsequent sections of this report.

Assumptions: Key considerations that guide the E&T JCSG approach to Military Value Analysis:

1. The primary objective of military education and training is to provide operational forces with sufficient numbers of personnel who are educated and trained to assume duty responsibilities in both Active and Reserve military units. The extent to which DoD education and training establishments provide military members the knowledge and skills they need to perform their operational/wartime missions is one of the cornerstones of readiness.
2. The following guiding principles were developed by the Education and Training Joint Cross Service Group and are inherent to subgroup deliberations:
 - Advance jointness
 - Achieve synergy
 - Capitalize on technology
 - Exploit best practices

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- Minimize redundancy
3. All BRAC data must be certified. Amplification guidance for data call questions will be specified as appropriate to direct installations to use certifiable databases. Current public source data (as incorporated in the AT&L sponsored Installation Visualization Tool) provide visual situation information for sensitivity analysis and supplemental follow-up queries. Certified responses to Military Value data call questions take precedence over reference data bases. However, significant variances may warrant subsequent data call queries.
 4. Imperatives applicable to E&T JCSG analysis will be vetted through and provided by the ISG. The E&T JCSG anticipates such ISG guidance will codify the Department's intent to preserve capabilities or access to capabilities that are essential to satisfy education and training requirements.
 5. The E&T JCSG established a common set of Quality of Life metrics and questions in order to provide greater uniformity throughout the process. Subgroups selected from the common set recognizing that some metrics were not applicable to their function and that some metrics would be given differing weights as appropriate to the different subgroups. For example, SST will place a greater weight on transient housing than would other groups, while PDE would be more concerned with adequacy of family housing. The reasoning behind the number of questions with relatively low weights per question is that no single factor will decide the Quality of Life metric; one must conduct analysis based on the aggregate score.

E&T JCSG resource requirements. Each Service and DoD agency is responsible for resourcing their participation throughout the BRAC 2005 process. The designated E&T JCSG subgroup lead (Service/JCS) is also responsible for funding requirements to administer subgroup activities.

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Section 1: Flight Training Subgroup Military Value Analysis

1. **Definition and scope of functions.** The scope of analysis for the Flight Training subgroup includes all DoD installations and processes that support the function of Aircrew Flight Training associated with the following flight training sub-functions. Note: Aircrew members are those who maintain a record of flight activity and receive compensation for performing flight duties in their specialty.
 - a. Undergraduate Training
 - i. Fixed-Wing Pilot
 - ii. Rotary-Wing Pilot
 - iii. Navigator / Naval Flight Officer
 - b. Graduate-level Training
 - i. Jet Pilot (JSF)
 - ii. Unmanned Aerial Vehicles Operators (UAVs)
 - c. Not included are: retiring aircraft (within BRAC implementation window of 2011), Service-unique aircraft, single-site aircraft, and specialized aircraft training (e.g., Special Ops aircraft).
 - d. Air Battle Manager (ABM) training and maintenance training associated with JSF are assigned to the Specialized Skills subgroup.
 - e. Enlisted Aircrew Undergraduate training is assigned to the Specialized Skills Training (SST) subgroup (“A” schools, “3” level training) because their training does not involve actual flying until graduate-level training. Although Flight Training initially developed scoring metrics for enlisted aircrew student messing and dormitories, these measures are also assigned to the SST subgroup.
 - f. The Flight Training subgroup will work with the Ranges subgroup on environmental issues impacting Military Value Analyses for flight training.
2. **Organization.** Chief of Naval Air Training (CNATRA), RADM George Mayer, chairs the Flight Training Subgroup.
3. **Process for establishing Scoring Plan for Military Value.**
 - a. The Flight Training subgroup identified each Service’s flight training activities/locations and categorized the training into graduate or undergraduate level sub-functions. The Military Value Analysis Scoring Plan was developed using the following steps:
 - i. The Flight Training subgroup identified six global attributes that apply to each sub-function.

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- ii. The four DoD selection criteria were given weighted value based on relative importance in assessing the Military Value of a site (reference paragraph 4, below).
 - iii. Each attribute was evaluated by sub-function and criteria for applicability. If it applied, it was then given a relative score for selection criteria. The four criteria weights for each attribute were totaled for an overall weight.
 - iv. A list of metrics was created for each attribute and weighted according to each sub-function.
 - v. The overall weight for each attribute was then compared across the sub-functions to ensure congruence with the subgroups military judgment. Significant differences in scoring were reviewed to ensure rationale was just.
- b. Assumptions (key assumptions that guide E&T JCSG FT subgroup’s analytical approach).
- i. Installations with larger capacities are of comparatively greater Military Value for flight training.
 - ii. Managed Training Areas (particularly Airspace) would be extremely hard to reconstitute if lost due to the BRAC process.
4. DoD Selection Criteria (Military Value). (Attachment 1, FT Scoring Plan)
- a. Criteria 1: The current and future mission capabilities and the impact on operational readiness of the Department of Defense's total force, including impacts on joint warfighting, training, and readiness.
- i. Overall weight for Criteria 1 is 40% - the installation’s ability to meet each Service’s training requirements (e.g. student throughput) in support of the projected force structure has greater value than any other criteria. It accounts for all factors such as weather, airfield facilities, training areas, environmental, and encroachment issues.
 - ii. The subgroup identified six attributes that applied to all eight sub-functions. The weighting of each attribute varies according to each sub-function. The attributes include:
 - 1) Airfield Capacity - runway capacity at main field, runway exits (taxiways), hangars, and ramp space.
 - 2) Weather (VFR/IFR, winds, icing, and weather attrition factor. Weather is a significant factor for Undergraduate flight training and UAVs.).
 - 3) Environment (encroachment, safety zones, air quality, noise abatement, and biological/habitat constraints. Environmental constraints can significantly impact the military’s ability to perform the mission).
 - 4) Quality of Life (availability of child development, housing, and cost of living are primary measures of QoL).
 - 5) Managed Training Areas (special use airspace, outlying/auxiliary fields, military training routes, airspace encroachment, and ranges).
 - 6) Ground Training Facilities (classrooms, simulator bays, and special training facilities).

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- iii. Weights for each attribute and metric vary according to the sub-function. Attachment 1 contains the rationale for the weights for each attribute and metric for each flight training sub-function.
 - iv. Questions and weight for each metric is listed in Attachment 1, by sub-function.
- b. Criteria 2: The availability and condition of land, facilities and associated airspace (including training areas suitable for maneuver by ground, naval, or air forces throughout a diversity of climate and terrain areas and staging areas for the use of the Armed Forces in homeland defense missions) at both existing and potential receiving locations.
- i. Overall weight for Criteria 2 is 35% - installation/infrastructure (particularly airspace and runway capacity) received the next highest value due to limited ability to reconstitute/reproduce these assets.
 - ii. The subgroup identified six attributes that applied to all eight sub-functions. The weighting of each attribute varies according to each sub-function. The attributes include:
 - 1) Airfield Capacity - runway capacity at main field, runway exits (taxiways), hangars, and ramp space.
 - 2) Weather (VFR/IFR, winds, icing, and weather attrition factor. Weather is a significant factor for Undergraduate flight training and UAVs.).
 - 3) Environment (encroachment, safety zones, air quality, noise abatement, and biological/habitat constraints. Environmental constraints can significantly impact the military's ability to perform the mission).
 - 4) Quality of Life (availability of child development, housing, and cost of living are primary measures of QoL).
 - 5) Managed Training Areas (special use airspace, outlying/auxiliary fields, military training routes, airspace encroachment, and ranges).
 - 6) Ground Training Facilities (classrooms, simulator bays, and special training facilities).
 - iii. Weights for each attribute and metric vary according to the sub-function. Attachment 1 contains the rationale for the weights for each attribute and metric for each flight training sub-function.
 - iv. Questions and weight for each metric is listed in Attachment 1, by sub-function.
- c. Criteria 3: The ability to accommodate contingency, mobilization, and future total force requirements at both the existing and potential receiving locations to support operations and training.
- i. Overall weight for Criteria 3 is 5% - received the lowest value due to no Service-documented surge requirements. Accelerating, truncating, or canceling segments of training syllabi and using existing infrastructure will most likely meet any contingency training requirements.

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- ii. The subgroup identified six attributes that applied to all eight sub-functions. The weighting of each attribute varies according to each sub-function. The attributes include:
 - 1) Airfield Capacity - runway capacity at main field, runway exits (taxiways), hangars, and ramp space.
 - 2) Weather (VFR/IFR, winds, icing, and weather attrition factor. Weather is a significant factor for Undergraduate flight training and UAVs.).
 - 3) Environment (encroachment, safety zones, air quality, noise abatement, and biological/habitat constraints. Environmental constraints can significantly impact the military's ability to perform the mission).
 - 4) Quality of Life (availability of child development, housing, and cost of living are primary measures of QoL).
 - 5) Managed Training Areas (special use airspace, outlying/auxiliary fields, military training routes, airspace encroachment, and ranges).
 - 6) Ground Training Facilities (classrooms, simulator bays, and special training facilities).
 - iii. Weights for each attribute and metric vary according to the sub-function. Attachment 1 contains the rationale for the weights for each attribute and metric for each flight training sub-function.
 - iv. Questions and weights for each metric are listed in Attachment 1, by sub-function.
- d. Criteria 4: The cost of operations and the manpower implications.
- i. Overall weight for Criteria 4 is 20% - significant cost drivers such as distance to Managed Training Areas (MTAs), environmental constraints, and conditions of facilities impact the military value of an installation.
 - ii. Attributes and weights for criteria and a rationale for that weighting scheme. The subgroup identified six attributes that applied to all eight sub-functions. The weighting of each attribute varies according to each sub-function. The attributes include:
 - 1) Airfield Capacity - runway capacity at main field, runway exits (taxiways), hangar and ramp space.
 - 2) Weather (VFR/IFR, winds, icing, and weather attrition factor. Weather is a significant factor for Undergraduate flight training and UAVs.).
 - 3) Environment (encroachment, safety zones, air quality, noise abatement, and biological/habitat constraints. Environmental constraints can significantly impact the military's ability to perform the mission).
 - 4) Quality of Life (availability of child development, housing, and cost of living are primary measures of QoL).
 - 5) Managed Training Areas (special use airspace, outlying/auxiliary fields, military training routes, airspace encroachment, and ranges).
 - 6) Ground Training Facilities (classrooms, simulator bays, and special training facilities).

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- iii. Weights for each attribute and metric vary according to the sub-function. Attachment 1 contains the rationale for the weights for each attribute and metric for each flight training sub-function.
- iv. Questions and weight for each metric is listed in Attachment 1, by sub-function.

5. Military Value Data Call.

- a. Data call questions that support each metric are provided in Microsoft Word format in Attachment 1.
 - i. Capacity Analysis data call questions that will be used for Military Value Analysis are indicated.
 - ii. New Capacity Analysis questions (omitted or consolidated from prior data call) that are necessary to support MVA are also indicated.
- b. All questions shall be submitted in the Input Question Tool (IQT) after this E&T JCSG Military Value Analysis Report is submitted to the ISG.
- c. Sensitivity analyses with notional data have tested the ability of metrics to differentiate responses and thereby provide discriminatory insight to the MV model. The resulting values were consistent with the intentions of the metrics.

6. Issues Impacting Analysis. None

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Section 2: Professional Development Education Subgroup Military Value Analysis

1. Definition and scope of functions. Installations and processes in the Professional Development Education category include DoD Professional Military Education (PME) and Other Professional Education. The April 22, 2003 DepSecDef memorandum provided the E&T JCSG an attachment that revised specific functions for E&T JCSG analysis IAW April 4, 2003 ISG meeting decisions. Professional Development Education is a category of institutional learning that includes educational courses conducted at Service or civilian institutions to broaden the outlook and knowledge of personnel or to impart knowledge in advanced academic disciplines and attended on a full-time basis. The following are functions or sub-functions to be analyzed by the PDE subgroup:
 - a. Professional Military Education (PME). The ISG approved E&T JCSG analysis of intermediate and senior officer military service schools and colleges. Primary (e.g. junior-officer) PME and enlisted leadership programs within this category are to be addressed via Service BRAC processes, if desired. All PME is Service-directed education.
 - i. Joint Professional Military Education (JPME). JPME is a subset of PME which (due to its criticality to DoD’s capability to conduct joint operations) merits specific BRAC 2005 analysis. The institutions and programs under consideration support fulfillment of the educational requirements for joint officer management.
 - ii. JPME is an OSD/JCS directed subset to Title 10.
 - b. Graduate Education. PDE subgroup analysis encompasses advanced academic disciplines, graduate education, and education programs funded within this sub-function (e.g. Program Element 804752).
 - c. Other Full-time Education (OFE). OFE and federal civilian service leader development programs include professional education programs (other than healthcare and intelligence) attended full-time (normal academic day) by military and/or civil service students. Education programs in this sub-function are funded via PE 804752 and may vary in length and content. PDE analysis of the OFE sub-function is not restricted to “degree granting” development/education programs.
 - i. Federal Civil Service Civilian Leader Development including the Defense Leadership and Management Program (DLAMP) enables DoD civilian leaders to assume broader responsibilities by expanding their knowledge of the Department’s national security mission.
 - ii. Professional education programs for military and civilian employees of the Department of Defense include leadership and development in numerous disciplines, e.g. attorneys, chaplains, logisticians, acquisition, and supply.

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- iii. IAW the ISG, education for healthcare and intelligence professionals will be analyzed by the Medical JCSG or Intelligence JCSG, respectively.
2. Organization. The Professional Development Education subgroup is chaired by JCS/VDJ-7 COL (P) Thomas Maffey.
 3. Process for establishing Scoring Plan for Military Value.
 - a. Methodology
 - i. First the subgroup established the four DoD selection criteria in order of importance. Next the subgroup designed five attributes that were indicative of Military Value in the sub-functions. Finally, the subgroup selected metrics that would measure the five attributes and developed questions that would allow data to be collected for each.
 - ii. For the analysis of historical data, the basis will be academic years 2000-2002. Due to anomalies caused by Operation IRAQI FREEDOM and Operation ENDURING FREEDOM, student data for academic year 2003 will not be used. Analysis will parallel force projection figures to account for manning combat operations.
 - b. Assumptions (key assumptions that guide E&T JCSG PDE subgroup's analytical approach): None.
 4. DoD Selection Criteria (Military Value). (Attachment 2, PDE Scoring Plan)
 - a. Criteria 1: The current and future mission capabilities and the impact on operational readiness of the Department of Defense's total force, including impacts on joint warfighting, training, and readiness.
 - i. Overall weight for each sub-function is 40%. Mission requirement is the most important because a professionally developed and educated officer is critical to the ability of the force to support the National Military Strategy (NMS) and meet current and future warfighting requirements of the Combatant Commander (COCOM).
 - ii. Attributes and weights for criteria and a rationale for that weighting scheme:
 - 1) Educational output: PME/JPME 25; Military graduate education 30; Other full-time education 30. Output is an important indicator of excess capacity and indicates total value of educated leaders.
 - 2) Facilities: PME/JPME 25; Military graduate education 30; Other full-time education 30. Facilities are critical for the measure of existing and potential capacity.
 - 3) Educational staff: each sub-function 20. A high quality, balanced (40% to 70% military) staff with managed turnover is valued in terms of currency, expertise, and continuity in operations. Conversely, a

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- predominately civilian administrative support staff is valued for its continuity and its positive impact on military manpower.
- 4) Location: Weight PME/JPME 20; Military graduate education 10; Other full-time education 10. Access to senior political, military, and interagency decision makers plays a role in building and maintaining synergy, currency, and mentorship. Access to Service and Joint centers of excellence (doctrine development, simulation centers, and experimentation), operational commands, and other PME institutions facilitates the synergy of faculty sharing, collaboration, mentoring, efficiency, and currency of curriculum. These attributes affect PME and JPME institutions differently than military graduate education and other full-time education.
 - 5) Quality of Life: each sub-function 10. Quality of Life is an aggregate factor in attracting and retaining high quality faculty and staff as well as in the overall educational experience and climate for the students and family members.
- iii. See Attachment 2 (Scoring Plan) for metrics for each attribute identified above, weighting for each metric, and a rationale for that weighting scheme.
 - iv. See Attachment 2 (Scoring Plan) for questions and weights for each metric.
- b. Criteria 2: The availability and condition of land, facilities and associated airspace (including training areas suitable for maneuver by ground, naval, or air forces throughout a diversity of climate and terrain areas and staging areas for the use of the Armed Forces in homeland defense missions) at both existing and potential receiving locations.
- i. Overall weight by sub-function is: PME/JPME 30; Graduate education 25; Other full-time education 20. Land and facilities are the most important consideration for potential expandability, relocation, or consolidation.
 - ii. Attributes and weights for criteria and a rationale for that weighting scheme:
 - 1) Educational output: PME/JPME 25; Military graduate education 30; Other full-time education 30. Output is an important indicator of excess capacity and total value of educated leaders.
 - 2) Facilities: PME/JPME 25; Military graduate education 30; Other full-time education 30. Facilities are critical for the measure of existing and potential capacity.
 - 3) Educational staff: each sub-function 20. A high quality, balanced (40% to 70% military) staff with managed turnover is valued in terms of currency, expertise, and continuity in operations. Conversely, a predominately civilian administrative support staff is valued for its continuity and its positive impact on military manpower.
 - 4) Location: Weight PME/JPME 20; Military graduate education 10; Other full-time education 10. Access to senior political, military, and interagency decision makers plays a role in building and maintaining synergy, currency, and mentorship. Access to Service and Joint centers

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- of excellence (doctrine development, simulation centers, and experimentation), operational commands, and to other PME institutions facilitates the synergy of faculty sharing, collaboration, mentoring, efficiency, and currency of curriculum. These attributes affect PME and JPME institutions differently than military graduate education and other full-time education.
- 5) Quality of Life: each sub-function 10. Quality of Life is an aggregate factor in attracting and retaining high quality faculty and staff as well as in the overall educational experience and climate for the students and family members.
- iii. See Attachment 2 (Scoring Plan) for metrics for each attribute identified above, weighting for each metric, and a rationale for that weighting scheme.
 - iv. See Attachment 2 (Scoring Plan) for questions and weights for each metric.
- c. Criteria 3: The ability to accommodate contingency, mobilization, and future total force requirements at both the existing and potential receiving locations to support operations and training.
- i. Overall weight for each sub-function is 10%. Contingency and mobilization is the least important criterion to this function since education is a planned program and is not impacted by mobilization surge requirements; however, it does have a future force component impact.
 - ii. Attributes and weights for criteria and a rationale for that weighting scheme:
 - 1) Educational output: PME/JPME 25; Military graduate education 30; Other full-time education 30. Output is an important indicator of excess capacity and indicates total value of educated leaders.
 - 2) Facilities: PME/JPME 25; Military graduate education 30; Other full-time education 30. Facilities are critical for the measure of existing and potential capacity.
 - 3) Educational staff: each sub-function is 20. A high quality, balanced (40% to 70% military) staff with managed turnover is valued in terms of currency, expertise, and continuity in operations. Conversely, a predominately civilian administrative support staff is valued for its continuity and it's positive on military manpower.
 - 4) Location: Weight PME/JPME 20; Military graduate education 10; Other full-time education 10. Access to senior political, military, and interagency decision makers plays a role in building and maintaining synergy, currency, and mentorship. Access to Service and Joint centers of excellence (doctrine development, simulation centers, and experimentation), operational commands, and to other PME institutions facilitate the synergy of faculty sharing, collaboration, mentoring, efficiency, and currency of curriculum. These attributes affect PME and JPME institutions differently than military graduate education and other full-time education.

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- 5) Quality of Life: each sub-function is 10. Quality of Life is an aggregate factor in attracting and retaining high quality faculty and staff as well as in the overall educational experience and climate for the students and family members.
 - iii. See Attachment 2 (Scoring Plan) for metrics for each attribute identified above, weighting for each metric, and a rationale for that weighting scheme.
 - iv. See Attachment 2 (Scoring Plan) for questions and weights for each metric.
- d. Criteria 4: The cost of operations and the manpower implications.
- i. Overall weight for criteria by sub-function: PME/JPME 20; Graduate education 25; Other full-time education 30. Rationale for weighting scheme: Cost and Manpower are important and represent the significant investment required to meet both Service and Joint education objectives.
 - ii. Attributes and weights for criteria and a rationale for that weighting scheme:
 - 1) Educational output: PME/JPME 25; Military graduate education 30; Other full-time education 30. Output is an important indicator of excess capacity and indicates total value of educated leaders.
 - 2) Facilities: PME/JPME 25; Military graduate education 30; Other full-time education 30. Facilities are critical for the measure of existing and potential capacity.
 - 3) Educational staff: each sub-function 20. A high quality, balanced (40% to 70% military) staff with managed turnover is valued in terms of currency, expertise, and continuity in operations. Conversely, a predominately civilian administrative support staff is valued for its continuity and its positive impact on military manpower.
 - 4) Location: Weight PME/JPME 20; Military graduate education 10; Other full-time education 10. Access to senior political, military, and interagency decision makers plays a role in building and maintaining synergy, currency, and mentorship. Access to Service and Joint centers of excellence (doctrine development, simulation centers, and experimentation), operational commands, and to other PME institutions facilitates the synergy of faculty sharing, collaboration, mentoring, efficiency, and currency of curriculum. These attributes affect PME and JPME institutions differently than military graduate education and other full-time education.
 - 5) Quality of Life: each sub-function 10. Quality of Life is an aggregate factor in attracting and retaining high quality faculty and staff as well as in the overall educational experience and climate for the students and family members.
 - iii. See Attachment 2 (Scoring Plan) for metrics for each attribute identified above, weighting for each metric, and a rationale for that weighting scheme.
 - iv. See Attachment 2 (Scoring Plan) for questions and weights for each metric.

5. Military Value Data Call.

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- a. Data call questions that support each metric are provided in Microsoft Word format in Attachment 2.
 - i. Capacity Analysis data call questions that will be used for Military Value Analysis are indicated.
 - ii. New Capacity Analysis questions (omitted or consolidated from prior data call) that are necessary to support MVA are also indicated.
 - b. All questions shall be submitted in the Input Question Tool (IQT) after this E&T JCSG Military Value Analysis Report is submitted to the ISG.
 - c. Sensitivity analyses with notional data have tested the ability of metrics to differentiate responses and thereby provide discriminatory insight to the MV model. The resulting values were consistent with the intentions of the metrics.
6. Issues Impacting Analysis. None.

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Section 3: Specialized Skill Training Subgroup Military Value Analysis

1. **Definition and scope of functions.** Installations and processes in the Specialized Skill Training category include all institutional training that provide officer and enlisted personnel with new or higher-level skills in military specialties or functional areas to match specific job requirements and include the sub-categories of initial skill, skill progression, and functional training (per an Aug 2003 ISG decision, medical officer and enlisted education and training was moved to the Medical JCSG and is not included under Specialized Skill Training).
 - a. **Initial Skill Training.** Instruction in a specific skill leading to the award of a Military Occupational Specialty or rating/classification at the lowest level; completion qualifies the individual for a position in the job structure (Air Force Specialty Code, Military Occupational Specialty, and Naval Enlisted Classification awarding courses).
 - b. **Skill Progression Training.** Instruction for personnel after Initial Skill Training, and usually some experience working in their specialty, to increase job knowledge and proficiency and to qualify individuals for more advanced job duties.
 - c. **Functional Training.** Instruction for personnel in various Military Occupational Specialties who require specific additional skills or qualifications without changing their primary specialty or skill level.
2. **Organization.** Specialized Skill Training is a subgroup of the Education and Training Joint Cross Service Group and is chaired by Maj Gen William M. Fraser, Air Education and Training Command, Director of Operations (AETC/DO).
3. **Process for establishing Scoring Plan for Military Value.**
 - a. The Military Value Analysis guidance as established by OSD provides a means (parametric methodology) to rank order facilities based on measures of merit and quantified facility attributes. Based on this guidance, the Joint Cross Service Group Specialized Skill Training subgroup requested service briefs on their training core competencies, philosophy, and most important attributes. Given the established criteria, and based upon the briefings, the subgroup determined the attributes as location, Quality of Life, training facilities / resources, support for other missions, training mission/throughput, and environmental constraints / expansion potential (see Attachment 3). After completion of this approach, OSD BRAC and Military Department directors worked with the sub-group to ensure data call questions and attributes were consistent with the collection and certification process.
 - b. **Assumptions:**
 - i. Known Service equities and core training concepts can and should be preserved.
 - ii. The key elements for SST production are classrooms, billeting, messing, faculty, and equipment. Higher Military Value is given for more capacity.

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- iii. Based on Service inputs, surge and maximum capacity requirements are identical. Although surge is not a primary criterion in the Military Value Scoring Plan, mobilization and contingency factors were figured into the SST Scoring Plan. SST steady state loading cannot be achieved; therefore, a contingency was factored within the Scoring Plan.
 - iv. The infrastructure objectives of the BRAC process are exclusive of Service qualitative training requirements (tasks, conditions, and standards). Therefore, existing Service qualitative training requirements must be maintained.
 - v. SST will assume responsibility for Enlisted Flight Training (orientation course only, not any flying training that involves sorties) from the Flight Training subgroup based on 27 January 2004 E&T JCSG decision and the USAF Air Battle Manager (ABM) IAW 11 March 2004 ISG guidance (SST assumed only that portion of USAF Air Battle Manager (ABM) that is classroom and did not assume any flying training that involves sorties).
 - vi. Per an Aug 2003 ISG decision, medical officer and enlisted education and training was moved to the Medical JCSG and is not included under Specialized Skill Training
4. DoD Selection Criteria (Military Value). (Attachment 3, SST Scoring Plan) These measures reflect the cumulative measures of the attributes.
- a. Criteria 1: The current and future mission capabilities and the impact on operational readiness of the Department of Defense's total force, including impacts on joint warfighting, training, and readiness.
 - i. Overall weight (percentage) for current and future mission requirements criterion is 43 (Initial Skills), 43 (Skills Progression), and 45 (Functional Training). Of the four given criteria, current and future mission requirements reflect the highest value. It measures the value of student load and training content (tasks, conditions, and standards) to meet the readiness requirements of the operating forces and supporting establishments. Other criteria are in a supporting or subordinate role.
 - ii. Attributes and weights for criterion and a rationale for that weighting scheme. (See Attachment 3, Military Value Scoring Plan).
 - iii. Metrics for each attribute, weighting for each metric and a rationale for that weighting scheme. (See Attachment 3, Military Value Scoring Plan)
 - iv. Questions for each metric and weight for each question. (See Attachment 3, Military Value Scoring Plan)
 - b. Criteria 2: The availability and condition of land, facilities and associated airspace (including training areas suitable for maneuver by ground, naval, or air forces throughout a diversity of climate and terrain areas and staging areas for the use of the Armed Forces in homeland defense missions) at both existing and potential receiving locations.

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- i. Overall weight (percentage) for land and facilities criterion is 32 (Initial Skills), 32 (Skills Progression), and 35 (Functional Training). Of the three remaining criteria, land and facilities reflects training capacity which is the major supporting criteria for current and future mission requirements. Further, it measures fixed facilities and property that cannot be easily changed.
 - ii. Attributes and weights for this criterion and a rationale for that weighting scheme. (See Attachment 3, Military Value Scoring Plan)
 - iii. Metrics for each attribute, weighting for each metric, and a rationale for that weighting scheme. (See Attachment 3, Military Value Scoring Plan)
 - iv. Questions for each metric and weight for each question. (See Attachment 3, Military Value Scoring Plan)
- c. Criteria 3: The ability to accommodate contingency, mobilization, and future total force requirements at both the existing and potential receiving locations to support operations and training.
- i. Overall weight (percentage) for land and facilities criterion is 10 (Initial Skills), 10 (Skills Progression), and 8 (Functional Training). This criterion measures the value of the unknown or unquantifiable nature of contingencies. As a result, it is weighted the lowest of all the criteria.
 - ii. Attributes and weights for criterion and a rationale for that weighting scheme. (See Attachment 3, Military Value Scoring Plan)
 - iii. Metrics for each attribute, weighting for each metric, and a rationale for that weighting scheme. (See Attachment 3, Military Value Scoring Plan)
 - iv. Questions for each metric and weight for each question. (See Attachment 3, Military Value Scoring Plan)
- d. Criteria 4: The cost of operations and the manpower implications.
- i. Overall weight (percentage) for cost and manpower is 15 (Initial Skills), 15 (Skills Progression), and 12 (Functional Training). This criterion measures the value of resources and manpower. Because this criterion is more variable, it can be managed or adjusted to meet changing requirements.
 - ii. Attributes and weights for criterion and a rationale for that weighting scheme. (See Attachment 3, Military Value Scoring Plan)
 - iii. Metrics for each attribute, weighting for each metric, and a rationale for that weighting scheme. (See Attachment 3, Military Value Scoring Plan)
 - iv. Questions for each metric and weight for each question. (See Attachment 3, Military Value Scoring Plan)

5. Military Value Data Call.

- a. Data call questions that support each metric are provided in Microsoft Word format in Attachment 3.

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- i. Capacity Analysis data call questions that will be used for Military Value Analysis are indicated.
 - ii. New Capacity Analysis questions (omitted or consolidated from prior data call) that are necessary to support MVA are also indicated.
 - b. All questions shall be submitted in the Input Question Tool (IQT) after this E&T JCSG Military Value Analysis Report is submitted to the ISG.
 - c. Sensitivity analyses with notional data have tested the ability of metrics to differentiate responses and thereby provide discriminatory insight to the MV model. The resulting values were consistent with the intensions of the metrics.
6. Issues Impacting Analysis. The Specialized Skill Training subgroup had no unresolved issues affecting Military Value Analysis.

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Section 4: Ranges and Collective Training Subgroup Military Value Analysis

1. Definition and scope of functions. The scope of analysis for the Ranges and Collective Training Capability subgroup includes all DoD Active Component and Reserve installations and processes that support collective training capabilities to include Service unit, and interoperability (cross-service) and joint training functions. This assessment includes training, test and evaluations (T&E) ranges, and training simulations centers. For comprehensive assessment of range capabilities, Army and Air National Guard ranges are included in this Military Value Analysis.
 - a. The Ranges and Collective Training Capability subgroup, hereinafter referred to as the “Ranges subgroup,” includes members from OSD and Service T&E staffs and collaboratively supports the Technical Joint Cross Service Group (TJCSG). The Ranges subgroup will work with the Flight Training subgroup on environmental issues impacting Military Value analyses for flying training.
 - b. The primary functions assessed for Military Value are:
 - i. Training: (Unit/Collective, Interoperability, Joint, and Simulation Centers)
 - 1) Unit/Collective: Instruction and applied exercises that prepare an organizational team (such as a squad, aircrew, battalion, or multi-Service task force) to accomplish required military tasks as a unit.
 - 2) Interoperable Training (Service-to-Service or Cross-Service): US Military Service components training that ensures the ability of systems, units, or forces to provide services to and accept services from other systems, units, or forces and to use the services, so exchanged, to enable them to operate effectively together during multi-Service operations. Services are responsible for providing interoperable forces to Combatant Commanders. Interoperability training is based on joint doctrine, and Joint Tactics Techniques and Procedures (JTTP).
 - 3) Joint Training: US military training based on joint doctrine or JTTP to prepare joint forces and/or joint staffs to respond to strategic and operational requirements deemed necessary by Combatant Commanders to execute their assigned missions. Joint training involves forces of two or more military departments interacting with a Combatant Commander or subordinate joint force commander; involves joint forces and/or joint staffs; and is conducted using joint doctrine and JTTP.
 - 4) Simulation Center. For the purpose of this effort, “simulation centers” will be defined as those capabilities that support Service unit training and DoD Interoperability and joint training. Simulation Center functions will be classified as:
 - a) Virtual Simulation: A simulation involving real people operating simulated systems. Virtual simulations inject human-in-the-loop in a central role by exercising motor control skills (e.g., flying an airplane), decision skills (e.g., committing fire control resources to

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action), or communication skills (e.g., as members of a Command, Control, Communications, Computers, & Intelligence team).

(*Reference*: DoD 5000.59-P, "Modeling and Simulation Master Plan," October 1995).

- b) **Constructive Model or Simulation**: Models and simulations that involve simulated people operating simulated systems. Real people stimulate (make inputs) to such simulations, but are not involved in determining the outcomes (*Reference*: DoD 5000.59-P, "Modeling and Simulation Master Plan," October 1995).

ii. Test & Evaluation (T&E):

- 1) **T&E functions**: Armaments/munitions (including directed energy), electronic combat, space combat, and ballistic missiles, Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (to include information operations/information assurance), air combat, land combat, chemical/biological defense, and sea combat.
- 2) **T&E Resource Categories**: Open-air ranges are one of six commonly recognized T&E resource categories used in acquisition support. These categories are:
 - a) **Digital Modeling and Simulation Facility (Digital Models and Computer Simulations)**. Simulation facilities include manned simulators.
 - b) **Hardware in the Loop (HITL) Facility**. HITL facilities are used to evaluate actual or proposed system hardware elements in a secure, controlled environment.
 - c) **Integration Laboratory (IL)**. ILs are most often used to support hardware and software development and to assess a complete range of sub-system performance.
 - d) **Installed System Test Facility (ISTF)**. ISTFs provide capabilities to evaluate developing systems installed on, and integrated with, their intended host platform, as well as to test the whole platform.
 - e) **Measurement Facility (MF)**. MF facilities range in size from large climatic chambers to small laboratories and open-air facilities that perform measurements of material properties.
 - f) **Open Air Range (OAR)**. Specifically bounded or designated geographic areas, including Operating Areas (OPAREAs), that encompass a landmass, body of water (above and below surface), and/or airspace used to conduct test and evaluation (as defined above) of military hardware, personnel, tactics, munitions, explosives, or electronic combat systems.

2. Organization. The Ranges subgroup is chaired by MG Buford Blount, Deputy Director of the Army Staff (DAS). The Ranges subgroup is organized into five working groups:

- a. **Ground Training**: Army led with Marine Corps.

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- b. Air Training: Air Force led with Navy and Marine Corps.
 - c. Maritime Training: Navy led with Marine Corps and Air Force.
 - d. T&E: Army led with members from OSD and Service T&E Staffs.
 - e. Training Simulation Centers: Navy led with all Service Training Staffs.
3. Process for establishing Scoring Plan for Military Value. (Reference: USD (AT&L) memorandum, Subject: BRAC 2005 Guidance for the Education and Training Joint Cross Service Group (JCSG), 16 July 2003. This memorandum provided the Chairman, Education and Training Joint Cross Service Group with the guidance on the process and overall approach for the Capacity Analysis, Military Value Analysis, and Scenario Development for the Base Realignment and Closure 2005.)
- a. The Ranges subgroup is responsible for the Military Value assessment of all ranges for both the training and T&E functions on ranges. E&T JCSG and Technical JCSG chairs agreed on procedures to facilitate proper consideration of the value of Open Air Ranges (OAR) to the Research, Development and Acquisition (RDA) T&E function within DoD. A Memorandum of Agreement (MOA) codifies coordination procedures already being followed between the two JCSG's in relation to ranges. The MOA, signed by E&T and Technical JCSG chairmen April 5, 2004, specifies the following:
 - i. Procedure to assure compatibility with the TJCSG Mil Value plans. The T&E range scoring plan was created with the involvement of TJCSG members.
 - ii. The TJCSG Cross Integration Team (CIT) and T&ESWG shall cooperatively identify scenarios; they will coordinate on all scenarios sent to either the E&T JCSG principals or the TJCSG principals that involve RDA T&E ranges.
 - iii. TJCSG does military value scoring analysis for all RDA T&E technical facilities except for open air ranges. T&ESWG does military value scoring analysis for RDA T&E range facilities. Each scoring group will coordinate with each other before each JCSG chair approves their analysis.
 - iv. The TJCSG Cross Integration Team (CIT) and T&ESWG chairs are expected to routinely coordinate on matters of mutual interest and raise issues early.
 - b. The Military Value Analysis guidance as established by OSD provides a means to rank order ranges/range complexes/OPAREAs on measure of merit and quantified attributes (USD (AT&L) Memorandum, Subject: Congressional Reporting Requirements on BRAC, December 16, 2003, directed the Assistant Secretaries and Director of the Defense Logistic Agency, to provide a report including a force structure plan, a worldwide inventory of installations, a description of the inventory necessary to support the force structure, a discussion on categories of excess infrastructure and an economic analysis of the effect of closure and realignments. For the requirement to discuss categories of excess infrastructure and infrastructure capacity, rank order based upon measure of merit and quantified attributes will be used).
 - i. Ranges were assigned to the E&T JCSG where they were separated into the two primary mission areas supported: Training and Test and Evaluation (acquisition support/technical). A team of subject matter experts supported

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- each mission area. Each team determined the relative importance of the established BRAC military value. Each team then designed attributes that were indicative of Military Value in their respective mission. Finally, each team selected metrics that would measure the attributes and developed supporting questions to gather data to score the metrics.
- ii. The four DoD selection criteria were weighted based on relative importance in assessing the Military Value of Training and T&E ranges. The military value for T&E ranges was clarified in the “DOD's Final BRAC Criteria” [Federal Register: February 12, 2004 (Volume 69, Number 29)], B(2)(e), on Page 6950 that stated: “Research, development, engineering, procurement and other technical capabilities are elements of military value captured within criteria one through four. The Department will consider military value in a way that incorporates these elements.” Each attribute under each criterion was evaluated for applicability (Training selected and evaluated fourteen separate attributes, T&E selected and evaluated five attributes that were the same across the four criteria). If they applied, they were given relative weights.
 - iii. Each attribute under each criterion was evaluated for applicability (Training selected and evaluated fourteen separate attributes, T&E selected and evaluated five attributes that were the same across the four criteria). If they applied, they were given relative weights.
 - iv. A list of metrics were developed and weighted for each attribute. Then the question was developed for the metric measurement. Each question was identified as Military Value, where the question would go out on the Mil Val data call, or Capacity, where the data was already asked for in the capacity data call and that data would be used for Mil Val measurement and analysis.
 - v. The scoring weights of the metrics and attributes were compared to ensure congruence within the Range subgroup’s respective Training and T&E subgroup’s military judgment and to verify the rationale for differences between the Training and T&E attributes, metrics, and scoring plans.
- c. The Training and T&E functions differ in their use of ranges – either or both functions may exist on a given range. In developing Mil Val attributes, these two functions were identified early as unique and requiring differing approaches to Mil Val analysis. This was described early in the capacity phase of the process and during the Mil Val development was agreed to by OSD BRAC as consistent with multiple functions within the other Subgroups of the E&T JCSG. However, the Ranges Subgroup was unanimous in interpreting OSD Criterion #2 to be, by definition, its primary focus resulting in the same weight for both functions.
- i. Since OSD Criterion #2 specifically addresses Ranges, the sole business of the E&T JCSG Ranges subgroup, we were presented with a challenge in determining how to assess the other three criteria. This challenge is unique to the Ranges subgroup since the other JCSGs and other subgroups within the E&T JCSG would address ranges as only one of a number of

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considerations. When assessing the Military Value of ranges relative to OSD Criteria, the Range subgroup concluded that Criterion #2 uniquely encompassed range capability across the air, land, and sea environments and supported all types (unit, collective, interoperable, and joint) of training and established the fundamental value of a range for current mission requirements. We addressed the challenge by focusing on the “future” term in Criterion #1. Criterion #1 is used to address future requirements (expected extrapolations of current requirements) without duplicating current requirements in Criteria #2. We developed attributes under Criterion #1 that address future range requirements for training, and we concentrated current requirement attributes in Criterion #2.

- ii. Ranges vary drastically in functions they perform, features (climate and terrain), size, types, and scopes of weapon system testing they can support. The costs to operate these ranges vary accordingly to complexity of the supporting physical plant (e.g., types of instrumentation, size, and threat environment), personnel required, workload and encroachment issues. Military Value based on cost of operations of a range is of little value in differentiating among T&E ranges, since each is so different and have so many variables – costs are not a significant differentiating factor. Cost considerations are not as significant to DoD as the Military Value of a range’s ability and capability to support missions.
- d. Scoring Plans for Training and Testing within the Ranges subgroup were briefed and approved by the E&T JCSG Range principals on January 5, 2004.
- e. Each Scoring Plan addresses the Military Value Selection Criteria as issued on June 27, 2003, and finalized February 12, 2004, by the Federal Register Vol. 69, No. 29.
- f. Scoring plan worksheets for training and T&E criteria, attributes, and metrics are contained in Attachment 4 in this report. The absolute primacy of Criteria 2 is driven by the idea that it encompasses the range’s capability across the air, land, and sea environments, to support all types (unit, collective, interoperable, joint) of training, excluding any encroached areas. The subgroup feels the availability of air, land, and sea environments is the fundamental military value of a range.g. Separate Scoring Plans were developed for the Training and T&E Functions within the Ranges subgroup to reflect their respective mission requirements. The following table demonstrates the cross-walk of the Training and Testing functions and how the different attributes generally relate.

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T & E Attributes	Training Attributes	Remarks
Personnel (14%)	Current Operating Costs (7%)	T&E: Includes technical personnel. Tng/T&E: Includes cost of personnel.
Workload (7%)	Range Capability by Unit Type (10%) Mission Capability (7.5%) Range Requirement Mobilization (10%)	T&E: Capture test hours Tng: Capture capability to support Training activities.
Physical Plant (40%)	Baseline Capability (11.7%) Future Weapons Systems (10%) Simulation Center Capability (2.3%)	Tng/T&E: Measure the physical space & characteristic of the physical space & capabilities.
Encroachment (25%)	Encroachment (4.7%) Ability to Expand (4%) Environmental Costs (3%) Ability to Reconfigure (2%)	Tng/T&E: Captures limitations and encroachments costs.
Synergy (14%)	Future Training (4%) Joint Training Capability (21.4%) Cross Functional Capability (2.4%)	T&E: Multiple T&E functions, jointness and co-location with technical infrastructure. Tng: Jointness, cross-functional capability with T&E and capability to support future training doctrine

- h. Assumptions (key assumptions that guide E&T JCSG Ranges subgroup’s analytical approach) None.
- i. For T&E, this scoring methodology will provide a ranked list of T&E ranges reflecting clear bands of military value.

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4. DoD Selection Criteria (Military Value).

- a. Criteria 1: The current and future mission capabilities and the impact on operational readiness of the Department of Defense’s total force, including the impact on Joint Warfighting, training, and readiness.
 - i. Overall weights (percentages) for criteria and a rationale for that weighting scheme:
 - 1) Training: 20%. Assessment based on future weapons systems employed in training, and on future Service, interoperability, and joint training doctrine.
 - 2) T&E: 30%. Assessment of technical capabilities required to perform T&E of current and future weapons systems.
 - ii. Attributes and weights for criteria and a rationale for that weighting scheme:
 - 1) Training:
 - a) Future Weapons Systems with Current Capacity. This attribute measures future weapons footprints against current range capacity. Key metrics are extended range weapons, extended reach maneuver units, UAV, and frequency restrictions. Simulations capability to support future systems is included here. Weight: 50%
 - b) Future Training Doctrine (T2 & JNTC): This attribute measure some key aspects of the JNTC concept – instrumentation evaluation of training, live OPFOR, and threat targets. Weight: 20%
 - c) Ability to Expand. This attribute considers external factors that assess land ownership, airspace, and seaspace with regard to expandability of a range for training. Weight: 20%
 - d) Ability to reconfigure. This attribute measures presence of mobile range instrumentation that permit reconfiguration to support training on future weapons systems and doctrine. Weight: 10%
 - 2) T&E:
 - a) Personnel: Assessment of the experience, education, and certification of personnel to meet current and future mission requirements. Weight: 25%
 - b) Workload: Assessment of the amount of T&E workload performed. Weight: 20%
 - c) Physical Plant: Assessment of space, natural features, range facilities, and availability.

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- d) Cross Functional. This attribute assesses presence of training – T&E cross-functional range capability based on embedded assets and past utilization. Weight: 4.7%
 - e) Simulation Center Capability. This attribute focuses on the simulators capability to support training and includes consideration of connectivity, mission rehearsal, simulation types, and simulation utilization. Weight: 4.6%
 - f) Encroachment. This attribute concentrates on the encroachment of ranges by environmental regulation and urbanization. It considers environmental and Federal agency regulation negatively impacting the range as well as measures to manage adjacent urbanization. Weight: 9.4%
- 2) T&E:
- a) Personnel: Weight: 00%
 - b) Workload: Weight: 00%
 - c) Physical Plant: Assessment of size, natural features, range facilities, and availability. Weight: 55%
 - d) Synergy: Assessment of T&E functions performed, customer base, and co-location with other T&E resources. Weight: 15%
 - e) Encroachment: Assessment of sustainability, based on limitations imposed by encroachment. Weight: 30%
- iii. Metrics for each attribute identified above; weighting for each metric and a rationale for that weighting scheme. See Attachment 4.
 - iv. Questions for each metric and weight for each question. See Attachment 4.
- c. Criteria 3: The ability to accommodate contingency, mobilization, and future total force requirements at both existing and potential receiving locations to support operations and training.
- i. Overall weights (percentages) for criteria and a rationale for that weighting scheme.
 - 1) Training: 20%. Assessment based on capability to support mobilization surges and future, steady state force structure training requirements.
 - 2) T&E: 10%. Assessment of technical capabilities required to perform T&E to meet surge requirements for current and future weapons systems.
 - ii. Attributes and weights for criteria and a rationale for that weighting scheme.
 - 1) Training:

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- a) Range Requirements Mobilization (Surge). This attribute measures a range’s capability to absorb higher levels of training than are routinely experienced now.
Weight: 50%
 - b) Range Capability by Unit. This attribute measures the capability to add numbers of key unit types to the training load of a range.
Weight: 50%
 - 2) T&E:
 - a) Personnel: Assessment of the experience, education, and certification of personnel to meet surge requirements.
Weight: 25%
 - b) Workload: Assessment of T&E workload performed.
Weight: 10%
 - c) Physical Plant: Assessment of size, natural features, range facilities, and availability.
Weight: 25%
 - d) Synergy: Assessment of T&E functions performed, customer base, and co-location with other T&E resources.
Weight: 20%
 - e) Encroachment: Assessment of sustainability, based on limitations imposed by encroachment.
Weight: 20%
 - iii. Metrics for each attribute identified above; weighting for each metric and a rationale for that weighting scheme. See Attachment 4.
 - iv. Questions for each metric and weight for each question. See Attachment 4.
- d. Criteria 4: The cost of operations and the manpower implications.
- i. Overall weights (percentages) for criteria and a rationale for that weighting scheme.
 - 1) Training: 10%. Assessment based on current baseline budget required to operate and maintain the range facilities. Assessment also considers environmental management mitigation costs.
 - 2) T&E: 10%. Assessment of the cost of ownership.
 - ii. Attributes and weights for criteria and a rationale for that weighting scheme.
 - 1) Training:
 - a) Total Budget. This attribute captures the total operating cost of the range over the past 3 years.
Weight 70%
 - b) Environmental costs. This attribute captures the environmental costs of the range in terms of environmental operating budget and fines over the past 3 years.

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Weight: 30%

2) T&E:

a) Personnel: Assessment of the cost of military and government personnel, and range support contracts.

Weight: 40%

b) Workload:

Weight: 00%

c) Physical Plant: Assessment of operating, maintenance, and material costs.

Weight: 40%

d) Synergy:

Weight: 00%

e) Encroachment: Assessment of the cost of compliance imposed by encroachment issues.

Weight: 20%

iii. Metrics for each attribute identified above; weighting for each metric and a rationale for that weighting scheme. See Attachment 4.

iv. Questions for each metric and weight for each question. See Attachment 4.

e. Summary of training key areas of interest and supporting attributes across the four OSD “final” criteria:

Training Area of Interest	Supporting Training Attribute(s)	Total Weight of Area of Interest
Joint/Interoperability Training	1-2; 2-3	.26
Baseline Range Capability	2-1; 2-2; 3-1; 3-2	.39
Simulation Capability to Support Training	1-1-5; 2-3-7; 2-5	.04
Capability to Support Future Weapons & Doctrine	1-1; 1-2; 1-3-1; 1-4	.17
Encroachment	1-1-4; 1-3-1; 2-2; 2-6; 4-2	.21
Costs	4-1; 4-2	.10
Subtotal		1.17

Note: Overlap/dual count between costs and encroachment -(.03)

Encroachment directly impacts/intertwined with baseline capacity and joint capability -(.14)

Total: 1.00

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- f. Summary of testing key areas of interest and supporting attributes across the four OSD “final” criteria.

T&E Areas of Interest = T&E Attributes	Total Weight of Area of Interest
Personnel	.14
Workload	.07
Physical Plant	.40
Synergy	.25
Encroachment	.14
Totals	1.00

5. Military Value Data Call.

- a. Data call questions that support each metric are provided in Microsoft Word format in Attachment 4.
 - i. Capacity Analysis data call questions that will be used for Military Value Analysis are indicated.
 - ii. New Capacity Analysis questions (omitted or consolidated from prior data call) that are necessary to support MVA are also indicated.
- b. All questions shall be submitted in the Input Question Tool (IQT) after this E&T JCSG Military Value Analysis Report is submitted to the ISG.
- c. Sensitivity analyses with notional data have tested the ability of metrics to differentiate responses and thereby provide discriminatory insight to the MV model. The resulting values were consistent with the intensions of the metrics.
 - i. Training ranges: A sensitivity analysis was conducted on the Range subgroup’s training range military value algorithm to ensure it supports key areas of interest and attributes across the four OSD “final” criteria. The goal was to determine the likelihood that scoring system could differentiate between ranges with various attributes. The results of the “key area of interest” shows the overall weights to be in line with joint interoperability, encroachments, and baseline capabilities composing 86% of the available 100%. In general, the military value of a training range is driven by two fundamental qualities. The first is size. Shear unencroached space is a primary driver for the military value score. The other major factor is the number of environments a range has available. Each environment (air, land, sea, and littorals), is unique and the military services require all of these. True joint training will require training range complexes with multiple environments available. Therefore, for a maximum score, a training range will have to have multiple environments available. A large training range complex with all environments available is the only training range likely to achieve a maximum score. While it is not envisioned that any training range will score a 1 or

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100, the additive nature of multiple environments and the fact that unencroached size is the primary evaluator of any environment, ensures that a wide variety of scores will result. To conduct the sensitivity analysis, four actual training range/range Complex/OPAREAs were selected. For each training range/range Complex/OPAREA, likely normalized scores were estimated for each metric, and the overall military value score was calculated based on the weights of the metrics. Estimates of metric values for each training range/range Complex/OPAREA were based on general knowledge regarding each training range/range Complex/OPAREA. Notional data used to date has affirmed that the scoring mechanism works properly and the scoring results will follow the intended algorithm. Results are appropriately sensitive to the inputs selected by the JCSG working group. New capacity analysis questions (omitted or consolidated from prior data call) that are necessary to support MVA are also indicated.

- ii. T&E ranges: A sensitivity analysis, using notional data, was conducted by the T&E Sub-working Group (T&ESWG) on the military value algorithm for T&E ranges. The MV of each T&E range will be determined according to five attributes as weighted according to applicability to the four mandatory BRAC 2005 military value criteria. These attributes are ***Personnel***, ***Workload***, ***Physical Plant***, ***Synergy***, and ***Encroachment***. With the exception of the ***Workload*** attribute, each attribute will be supported by metrics that will in turn be weighted relative to the respective attribute for each criterion. (The ***Workload*** attribute serves as its own metric). Each metric will be supported by one or more questions supplied by the BRAC 2005 Capacity and MV data calls. The questions will also be weighted according to their respective metric. The responses to the questions are to be scored according to the scoring formulas.

6. Issues Impacting Analysis. None; E&T JCSG, T JCSG, and ISG concerns regarding T&E ranges have been addressed and resolved, reference E&T JCSG and T JCSG MOA.